CAUTION!

PLEASE SWITCH POWER OFF
BEFORE SERVICING UNIT

Commercial Freezer Service Manual

SALAD/SANDWICH PREP TABLE

PUC28F

Please read this manual completely before attempting to install or operate this equipment.

TABLE OF CONTENTS

1. FEATURE CHART

1-1. OUTSIDE DRAWING AND MEASUREMENT FOR PUC28F

2. WIRING DIAGRAM

2-1. FREEZER: PUC28F

3. PARTS DETAILS

3-1. BOTTOM PANEL

3-2. REFRIGERATION COMPARTMENT

3-4. DOOR

3-5. COOLING COMPARTMENT

4. MAIN COMPONENTS

4-1. COMPRESSOR

4-2. COMPRESSOR RELAY

4-3. CONDENSER DRYER

4-4. CAPACITOR

4-5. EVAPORATOR FAN MOTOR

4-6. CONDENSER FAN MOTOR

4-7. EVAPORATOR DEFROST HEATER

4-8. LAMP

4-9. THERMOSTAT

5. ELECTRONIC CONTROLLER INSTRUCTION

5-1. REFRIGERATOR CONTROLLER

5-1-1. DIXELL PARAMETER FOR FREEZER

5-1-2. HOW TO USE THE CONTROLLER

6. REPLACEMENT OF MAIN COMPONENTS

6-1. FRONT PANEL PARTS

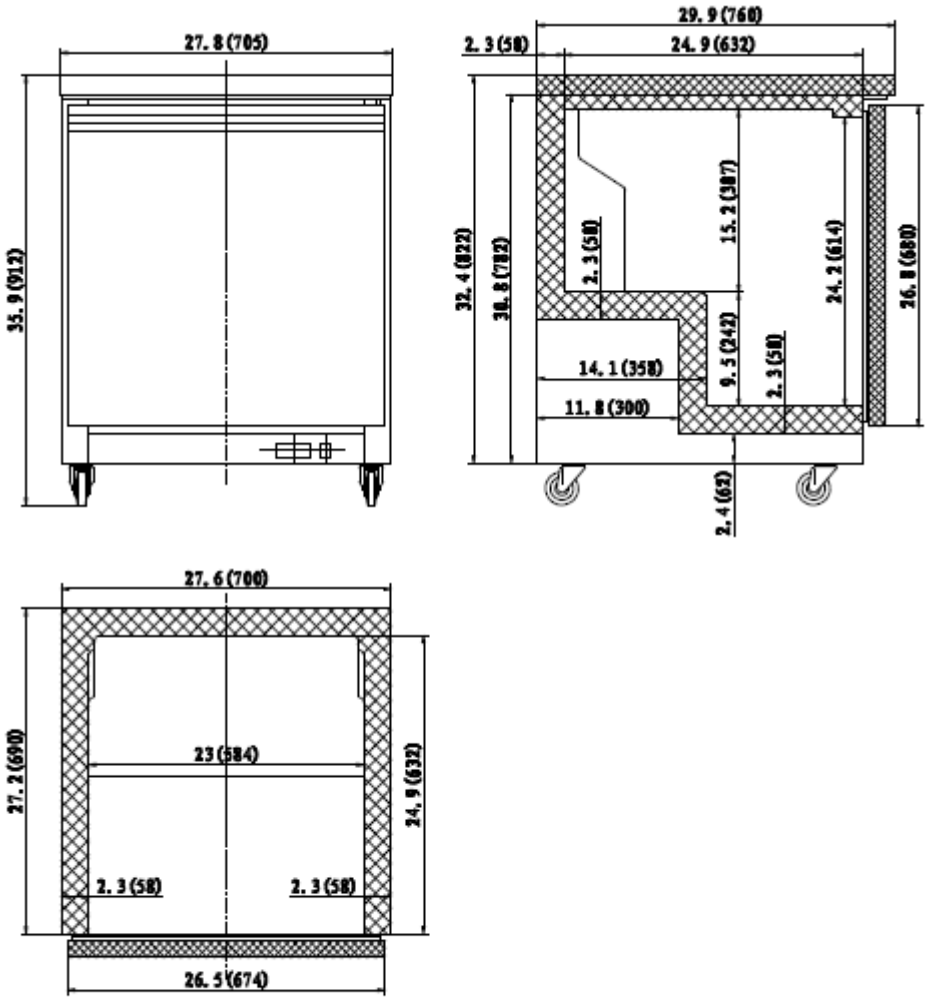
6-2. DOOR CHANGING

6-3. REFRIGERATION COMPARTMENT PARTS

6-4. CONDENSING UNIT

1. FEATURE CHART

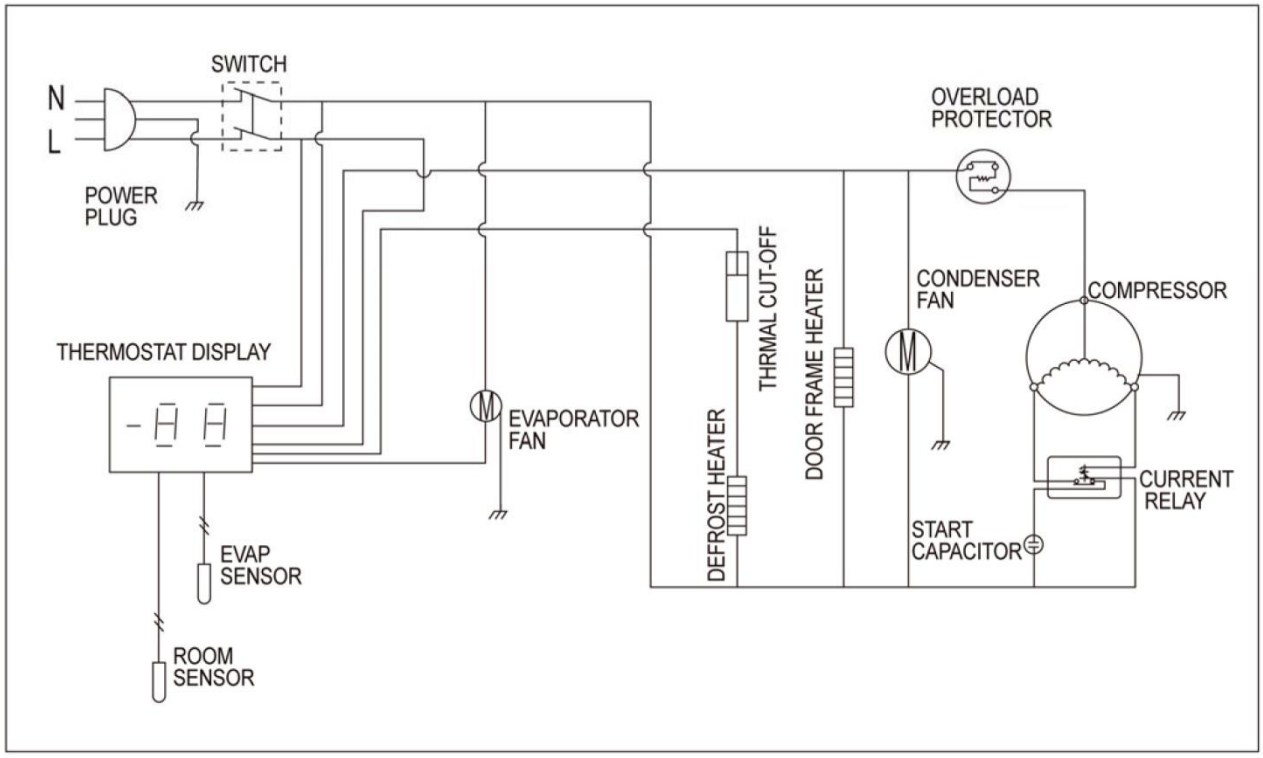
1-1. OUTSIDE DRAWING OF PUC28F



OUTSIDE DRAWING OF PUC28F

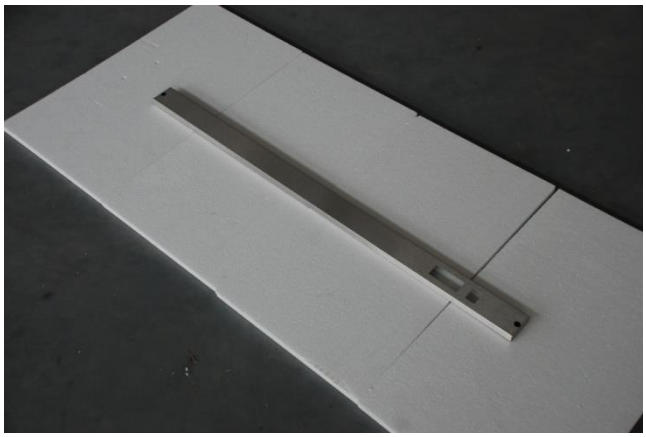
2. WIRING DIAGRAM

2-1. PUC28F

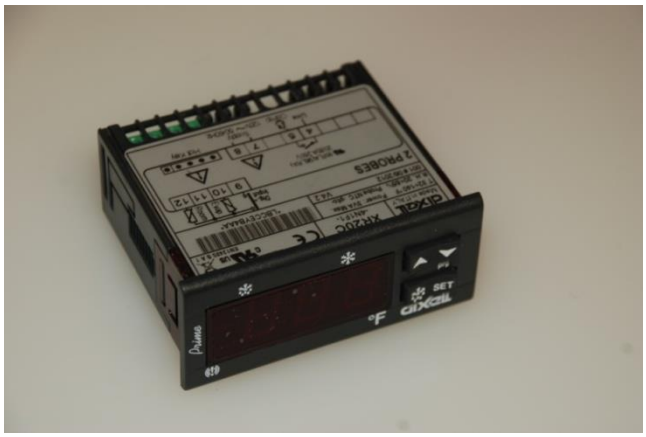


3. PARTS DETAILS

3-1. BOTTOM PANEL



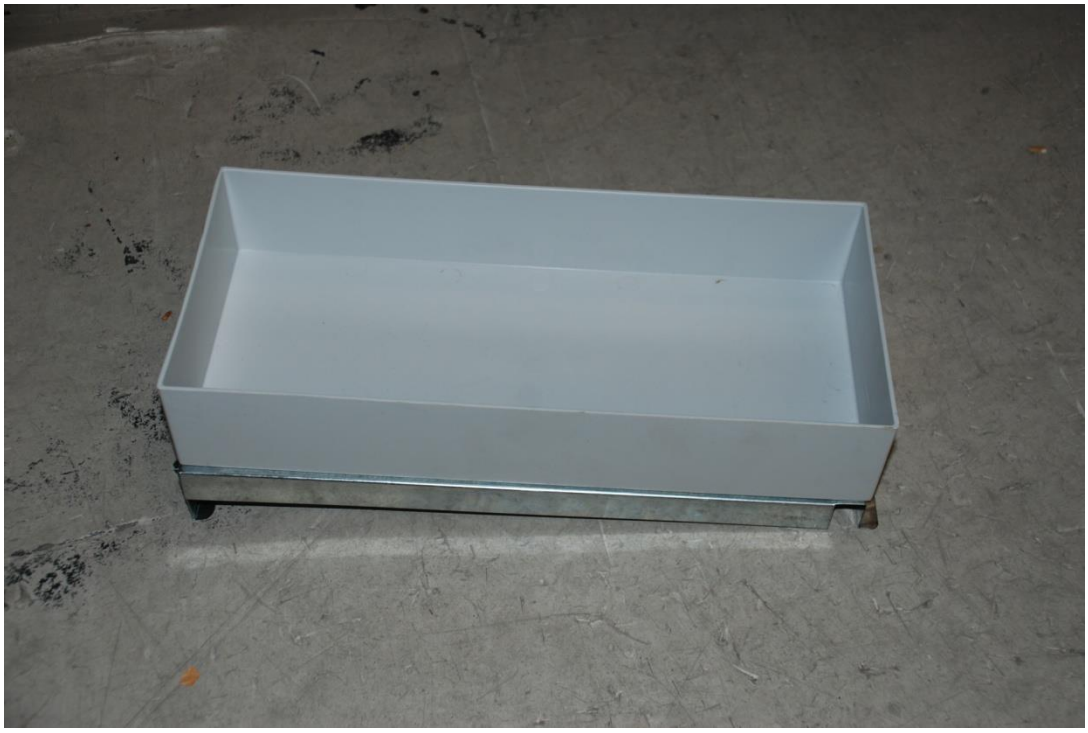
THERMOSTAT



MAIN SWITCH

3-2. REFRIGERATION COMPARTMENT CYCLE ASSEMBLY

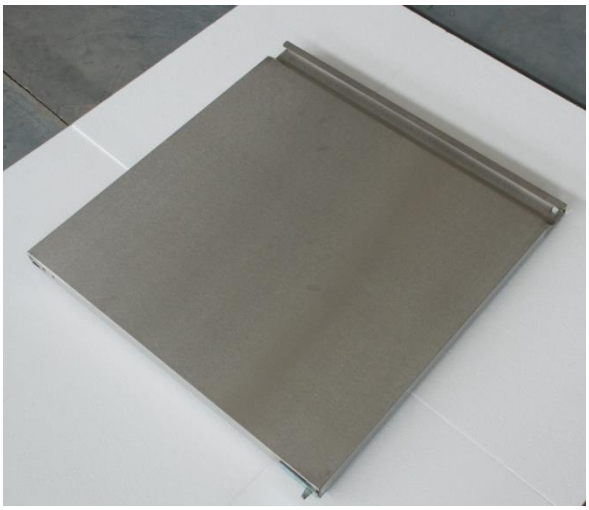
DRAIN PAN



CONDENSER FAN MOTOR ASSEMBLY

FAN COVER **CONDENSER FAN MOTOR BLADE** **CONDENSER FAN MOTOR**

3-3. DOOR



GASKET

Magnetic gasket can be replaced without any tools.

4. MAIN COMPONENTS

4-1. COMPRESSOR

MODEL	**PUC28F**
Refrigerant	**R-404A**
Voltage	**115V/60Hz**
Comp. Model	**NEK2134GK**
Part code	**TUC27F.07**

4-2. COMPRESSOR RELAY

	PUC28F
Voltage	**115V / 60Hz**
Relay Model	**X**

4-3. CONDENSER DRYER

MODEL	**PUC28F**
Refrigerant	**R-404A**
Spec.	**XH-9 25g**
Part code	**GN1410TN.14**

4-4. CAPACITOR

MODEL	**PUC28F**
Voltage	**115V / 60Hz**
Running	**X**
Starting	**189-227μf**

4-5. EVAPORATOR FAN MOTOR

MODEL	**PUC28F**
Voltage	**115V / 60Hz**
Motor Model	**1238**
Part code	**TUC27.31**

4-6. CONDENSER FAN MOTOR

MODEL	**PUC28F**	
Voltage	**115V / 60Hz**	
Motor Model	**BD03-04/C06**	
Part code	**54F.09**	

4-7. EVAPORATOR DEFROST HEATER

MODEL	**PUC28F**	
Voltage	**115V / 60Hz**	
Spec.	**500**	
Part code	**TUC27F.04**	

4-8. LAMP

MODEL	**PUC28F**
Voltage	**115V/60Hz**
Spec.	**---**
Part code	**---**

4-9. MAIN PCB

MODEL	**PUC28F**
Voltage	**115V / 60Hz**
Model	**XR60C**
Part code	**27F.11**

5. ELECTRONIC CONTROLLER INSTRUCTION

5-1-1.

DIXELL XR60C PARAMETER FOR FREEZER

PUC28F

NO.	CODE	PARAMETER	SET(℉)
1	Set	Main Set point	-7
2	Hy	Differential(hysteresis)	4
3	LS	Lower limit of main set point	-11
4	US	Upper limit of main set point	-1
5	Ot	Offset	-1
6	P2P	Evaporator probe presence	Y
7	OE	Evaporator probe calibration	0.0
8	P3P	Condenser probe presence	Y
9	P3F	Condenser probe function	Au2
10	O3	Condenser probe calibration	0
11	Ods	Outputs delay at start up	0
12	AC	Minimum time interval between the deactivation and successive activation on compressor	5
13	CCt	Continuous cycle duration	0
14	Con	Compressor on-time during probe failure	10
15	COF	Compressor off-time during probe failure	10
16	CF	Unit of measure	℉
17	rES	Resolution	dE
18	Lod	Probe displayed	P1
19	tdF	Defrost type	EL
20	dtE	Defrost-end temperature	45
21	IdF	Time interval between defrost cycle	6.0
22	MdF	Max defrost cycle time	20
23	dSd	Start defrost delay	0
24	dFd	Displaying during defrost	it
25	dAd	Real temperature display delay at defrost end	0
26	Fdt	Dripping time	2
27	dPo	First defrost cycle after controller start up	n
28	dAF	Defrost delay after fast freezing	0
29	Fnc	Fan operating mode during normal controller	o-n
30	Fnd	Fan activation delay at controller startup and after defrost	2
31	FSt	Fan stop temperature	54
32	ALC	Temperature alarms configuration	rE
33	ALU	Max temperature alarm differential	90
34	ALL	Minimum temperature alarm differential	0

35	**ALd**	**Minimum or minimum temperature alarm delay**	**99**
36	**dAO**	**Delay of temperature alarm at start up**	**1h**
37	**AU2**	**Condenser alarm temperature**	**144**
38	**ACH**	**Condenser alarm differential**	**8**
39	**Ad2**	**Condenser alarm delay**	**0**
40	**dA2**	**Delay of condenser temperature alarm at start up**	**0**
41	**AC2**	**Compressor stop for condenser alarm**	**AUt**
42	**Pbc**	**Kind of probe**	**ntc**

5-1-2.

1. FRONT PANEL COMMANDS

SET: To display target set point. Select a parameter or confirm an operation in programming mode.

(DEF) To start a manual defrost

(UP) To view the last alarm occurrence; in programming mode, it browses the parameter codes or increases the display value

(DOWN) To view the last alarm occurrence; in programming mode, it browses the parameter codes or decreases the display value

KEY COMBINATION

+ To lock & unlock the keyboard

SET + To enter in programming mode

SET + To return to the room temperature display

1.1 Function of LEDS

LED	MODE	FUNCTION
❄	ON	Compressor enabled
❄	Flashing	-Programming Phase (flashing with ❄) - Anti-short cycle delay enabled
❄	ON	Defrost enabled
❄	Flashing	- Programming Phase (flashing with ❄) - Drip time in progress
	ON	Fans enabled
	Flashing	Fans delay after defrost in progress.
	ON	A temperature alarm occurred

2. MAIN FUNCTIONS

2.1 HOW TO VIEW THE SET POINT

1. Push and immediately release the **SET** key: the display will show the set point value.
2. Push and immediately release the **SET** key or wait for 5 seconds to display the sensor value again.

2.2 HOW TO CHANGE THE SET POINT

1. Push the **SET** key for more than 2 seconds to change the set point value.
2. The value of the set point will be displayed and the ❄ LED starts blinking.
3. To change the set value, push the ▲ or ▼ key within 10s.
4. To set new point value, push the SET key again or wait 10s.

2.3 HOW TO START A MANUAL DEFROST

Push the ❄ key for more than 2 seconds and a manual defrost will start

2.4 HOW TO LOCK THE KEYBOARD

1. Hold the ▲ and ▼ keys for more than 3s.
2. The “POF” message will be displayed and the keyboard will be locked. At this point, it will be possible only to see the set point or the MAX or Min temperature stored.
3. If a key is pressed more than 3s the ”POF” message will be displayed.

2.5 HOW TO UNLOCK THE KEYBOARD

Hold the ▲ and ▼ keys together for more than 3s, till the “POF” message is displayed.

3. ALARM SIGNALS

HOW TO VIEW THE ALARM AND RESET THE RECORDED ALARM

1. Hold the ▲ or ▼ key to display the alarm signals.
2. When the signal is displayed, hold the **SET** key until the “rst” message is displayed. Push the **SET** key again. The “rst” message will start blinking and the normal temperature will be displayed again.

Message	Cause	Outputs
"P1"	Room probe failure	Compressor output according to par. "Con" and "COF"
"P2"	Evaporator probe failure	Defrost end is timed.
" P3"	Condenser probe failure	Outputs unchanged.
"HA"	Maximum temperature alarm	Outputs unchanged.
"LA"	Minimum temperature alarm	Outputs unchanged.
"dA"	Door open	Compressor and fans restart.
"EA"	External alarm	Output unchanged.
"CA"	Serious external alarm (i1F=bAL)	All outputs OFF.
" CSd"	Condenser alarm	All outputs OFF.

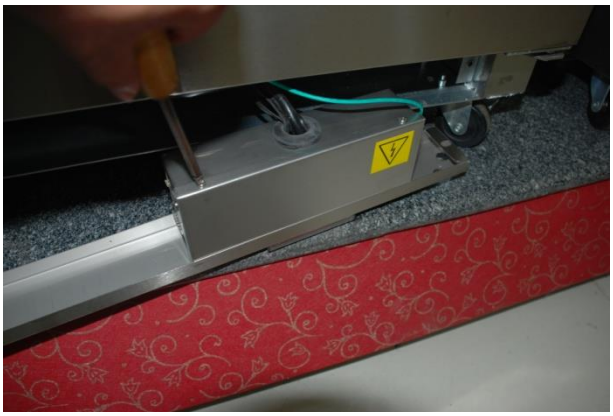
6. REPLACEMENT OF MAIN COMPONENTS

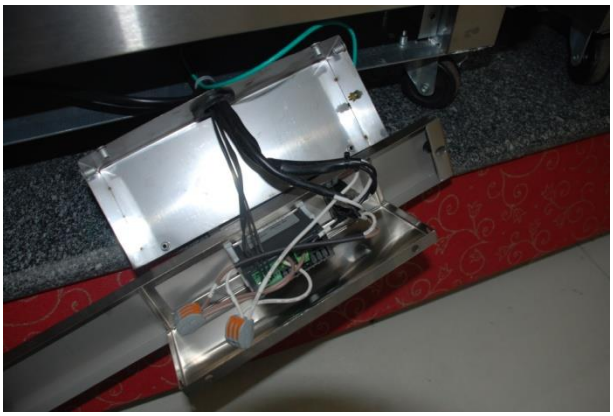
6-1. BOTTOM PANEL PARTS

6-1-1. UNSCREW BOTH SIDES OF THE BOTTOM PANEL

6-1-2. PULL THE BOTTOM PANEL OUT

6-1-3. UNSCREW THE JUNCTION BOX





6-2. DOOR CHANGING

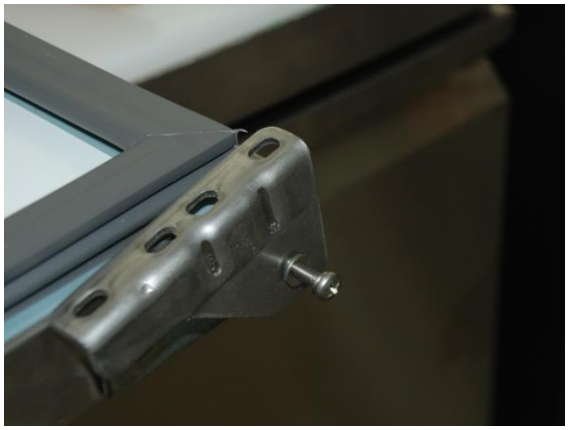
6-2-1. UNSCREW THE BOTTOM HINGE

6-2-2. PULL DOWN DOOR

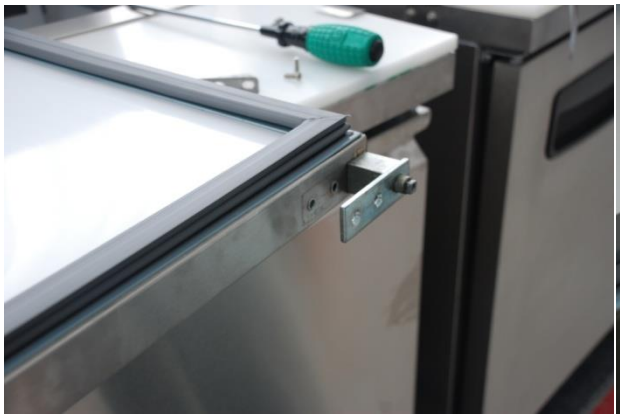
6-2-3. CHANGE THE DOOR HINGE.

A. PUT THE DOOR ON A FLAT LEVEL

B. UNSCREW THE HINGE

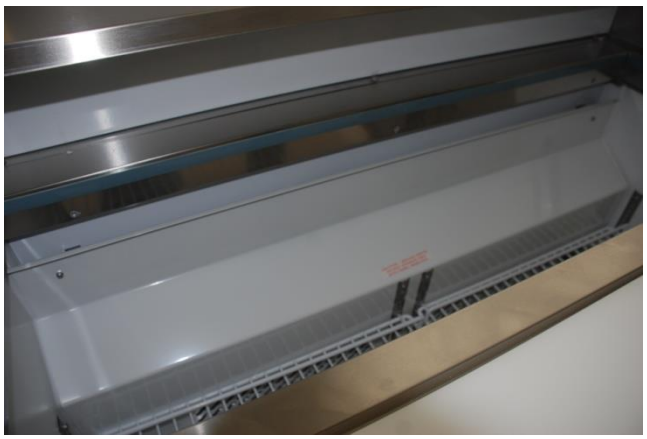


C. PULL OUT THE SPRING HINGE



6-3. REFRIGERATION COMPARTMENT PARTS

6-3-1. BEFORE OPENING THE REFRIGERATION COMPARTMENT, PLEASE TAKE ALL THE PANS OUT AND TAKE THE PAN SUPPORT OFF.



6-3-2. TAKE THE SHELVES OFF, K SHAPE CLIPS, AND SENSOR OFF

6-3-3. UNSCREW THE EVAPORATOR COVER.

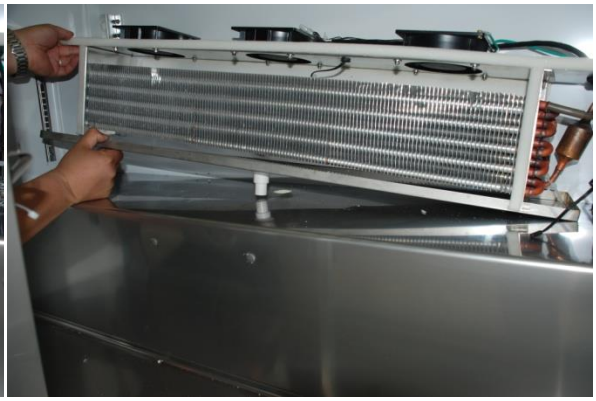
6-3-4. TAKE OFF THE EVAPORATOR COVER

6-3-5. CHANGE EVAPORATOR AND WATER PAN

A. UNSCREW THE EVAPORATOR

B. BEFORE CHANGING THE EVAPORATOR, CUT OFF THE EVAPORATOR PIPE AND DISCONNECT THE WIRE TO THE SENSOR.

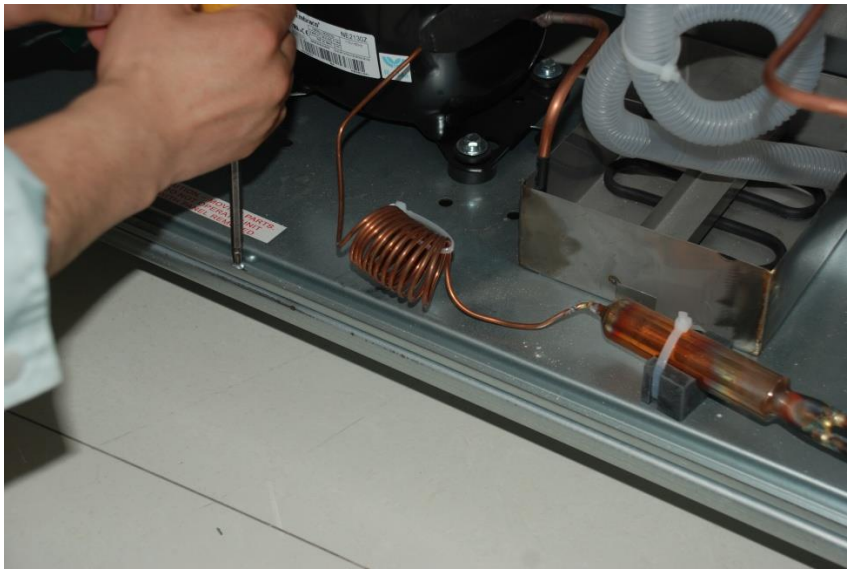
C. UNSCREW THE SCREWS FOUND AT THE TOP OF THE EVAPORATOR, AND DISCONNECT IT. REPLACE THE EVAPORATOR, REATTACH THE PIPE AND CONNECT THE SENSOR WIRES.

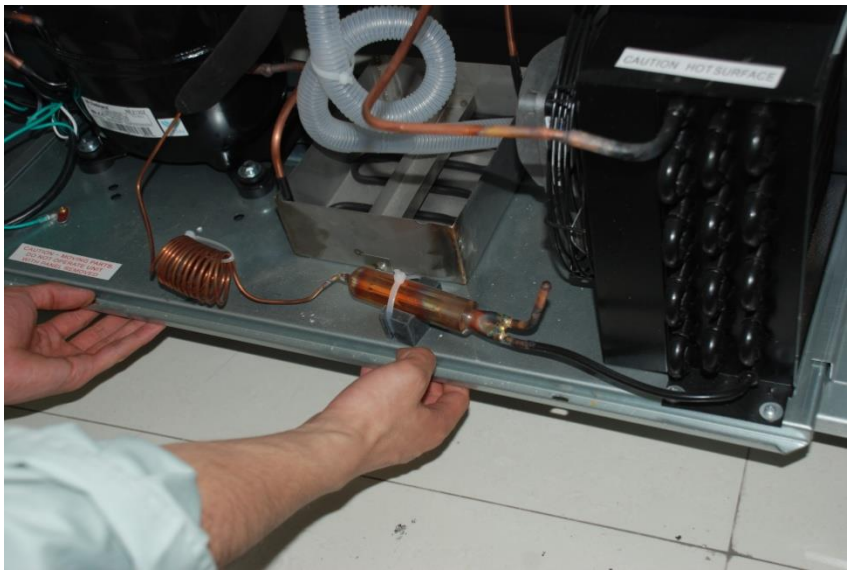


6-4. CONDENSING UNIT

6-4-1. TAKE OFF THE BACK COVER.

6-4-2. UNSCREW THE UNIT BOARD. YOU CAN PULL THE UNIT BOARD OUT FOR ANY REPAIRS OR CLEANING.





CAUTION: BE CAREFUL OF ELECTRIC SHOCK

CAUTION: MAKE SURE THE POWER SUPPLY IS CUT OFF BEFORE ANY SERVICE IS PERFORMED.

CAUTION: CONDENSING UNIT MAY BE VERY HOT. BE SURE IT IS COOL BEFORE ANY SERVICE IS PERFORMED.